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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/955,095	09/19/2001	Hiroshi Koyama	P281124 U3-9613-B	9734
27572	7590	08/30/2004	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			DAVIS, ROBERT B	
			ART UNIT	PAPER NUMBER
			1722	

DATE MAILED: 08/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/955,095	KOYAMA ET AL. 
	Examiner Robert B. Davis	Art Unit 1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address.  
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 06 August 2004.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 9, 14, 15 and 19-25 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 19-25 is/are allowed.
- 6) Claim(s) 9, 14 and 15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection.

Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 06 August 2004 has been entered.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

The status of parent applications 09/472,985 and 08/649,306 must be updated to include the Patent numbers in the specification.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 9, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharp (UK specification 1,382,583: figures 1-10, page 1, lines 25-49 and 68-90, page 2, lines 21-26, 48-62 and 69-71, page 3, lines 44-61 and 1 17-128, and page 4, line 106 to page 5, line 8).

Sharp discloses an apparatus for encapsulating an insert comprising: a die set (16, 20) which defines a molding cavity, hold members (27) for releasably holding an insert (37) within the mold cavity for properly positioning the insert in relation to the mold cavity surfaces, means for injecting molten resin into the cavity (page 3, lines 101-103), means for separating the hold member from the insert (sliders 29 which move the holders from the insert holding position to the retracted position wherein the holders are flush with the mold cavity, see page 2, line 124 to page 3, line 22), means for heating a surface of the hold member to a temperature higher than a temperature of an inner surface of the die set which is electrical heater (74). The reference also discloses forming the holding members (27) with a ceramic tip (41) that insulates the pin from the molding resin (see page 3, lines 44-61). The reference further teaches water passages (16a and 20a) for the passage of cooling water to cool the molten plastic injected into the mold cavity. The reference further teaches means for stopping the supply of

electricity to the heaters in the holding members upon retraction of the holding members that constitutes a controller for controlling the cooling of the mold.

In regards to claim 1 as amended, the language "the heating means being activated simultaneously with or after the injecting means injects the molten resin into the cavity" is intended use. The reference clearly states that a limit switch turns off the heating means after retraction of the holding pins. Therefore it is inherent that the heating means is turned on during a subsequent molding operation. As such, the heating means is capable of being turned on. In regards to the added language that the temperature of the hold member is equal to or lower than the thermal deformation point of the insert while the hold member holds the insert and the temperature of the hold member is equal to or higher than the melting point of the resin and is equal to or lower than the thermal deterioration point of the resin when the hold member is moved, this language is intended use that does not further limit the structure of the molding apparatus or the means for heating. The intent of the invention of sharp is to prevent depressions in the area of holding members that are removed during the molding process from an insert. Clearly, these holding members are heated for this purpose in at least one embodiment of Sharp. The relative temperature of the holding members in relation to the insert and the resin is intended use and does not carry patentable weight. Further, such operation temperatures would have been readily apparent to one of ordinary skill in the art as the destruction or damage of either the insert or the molding resin clearly results in an inferior product. Sharp does not disclose that the hold member comprises a heat

generating member made of an electrically conductive ceramic and the body surrounding the heat generating member being made of an insulating ceramic.

Westover discloses an electric heater having an outer insulating ceramic and an inner conductive ceramic which provides an improvement over conventional heaters because the heater does not require sophisticated clips or terminals to withstand high temperatures and the heater is rugged and reliable.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Sharp by using a ceramic heater having a conductive ceramic as disclosed by Westover because the use of a two component ceramic heater provides a rugged and reliable heating device which does not require sophisticated clips or terminals.

#### ***Allowable Subject Matter***

6. Claims 19-25 are allowed over the prior art of record for the reasons of record.

#### ***Response to Arguments***

7. Applicant's arguments filed 06 August 2004 have been fully considered but they are not persuasive. Applicant argues that the reference does not disclose the heating means being turned on or after injection of the resin into the mold cavity. The examiner acknowledges this, but states that the applicant has only added intended use language into claim 9. Claim 19 has been allowed because of the positive recitation of control means for activating the heating means simultaneous with or after the injection means injects molten resin into the cavity. The heating means of the retractable holding pins of Sharp are turned off

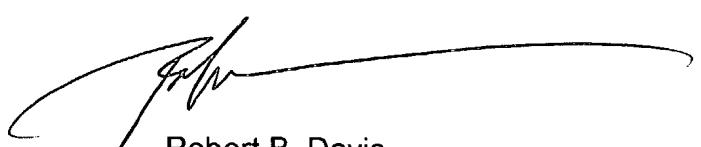
after retraction and thus the apparatus must have a means to turn the heating means on in a subsequent molding cycle. Applicant states that Sharp fails to disclose or suggest specific control limits; however, these so-called "control limits" are merely intended use and do not further define the structure over the apparatus of Sharp. It is suggested that claim 9, 14 and 15 be canceled so the case can be passed to issue.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 571-272-1129. The examiner can normally be reached on Monday-Friday 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin L. Utech can be reached on 571-272-1137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert B. Davis  
Primary Examiner  
Art Unit 1722

8/26/04